

dium, presents all the same characters as *D. macrostomum*, from which it differs only in size. Its length is from $\frac{1}{4}$ to $2\frac{1}{2}$ lines, while that of *D. macrostomum* is only $\frac{1}{2}$ to $\frac{2}{3}$ line. These two forms would therefore seem to constitute only a single species, which attains larger dimensions in the Waders than in the Passerine birds.

The author concludes with some remarks upon the singular mimesis presented by the *Leucochloridium*, the resemblance of which to the larva of an insect cannot fail to strike all who examine that singular parasite. In his opinion, this resemblance, destined to deceive insectivorous birds, has a teleological significance; for it does not serve for the protection or preservation of the creature, but rather leads to its destruction. It is true that this destruction is associated with the development of the larvæ contained in it; "but," says the author, "no one can suppose that our *Leucochloridium* thus sacrifices its own existence to secure that of its progeny." Agreed! but no naturalist has ever asserted that mimetism was due to an effect of the will of the creature that imitates. It shows a very erroneous conception of the theory of mimetism, and consequently of that of selection, to suppose that it ascribes the modifications of the species to voluntary actions of the individuals; and we are sorry to see Dr. Zeller make use of the interesting facts that he has discovered in support of such reasoning. In the great struggle for existence the species is all, the individual almost nothing; and what can be more favourable to the preservation of the species than this deceptive imitation which leads to the sacrifice of an individual without organs, such as *Leucochloridium*, in order to secure to the larvæ of the *Distomum* their transportation into the intestine of an insectivorous bird, where they can acquire their definitive development and become fitted to reproduce their kind.—*Zeitschr. für wiss. Zool.* vol. xxiv. (1874), p. 564; *Bibl. Univ., Bull. Sci.* 1874, p. 366.

The Diatomæ of the Carboniferous Period.

By Count F. CASTRACANE.

The author believing that, although hitherto undetected, Diatomæ must have existed at the time of the formation of coal, hit upon the ingenious expedient of examining with the microscope the ashes of coal, instead of the thin sections previously studied. In this way he has succeeded in ascertaining the presence in coal, received from Liverpool, of a great number of species of Diatoms. Most of them belong to freshwater genera or species; but the presence of marine species mixed with these seems to prove that the ground in which this coal was formed was in more or less frequent communication with the sea.—*Actes de l'Acad. Pontif. des Nuovi Lincei*, February 1874; *Bibl. Univ., Bull. Sci.* 1874, p. 376.